

first translatable sequence that (i) encodes a linker polypeptide in frame with said matrix anchor polypeptide and (ii) includes a sequence adapted for ligation of an insert polynucleotide that defines a third translatable sequence downstream from said second translatable sequence that encodes a preselected polypeptide, and

e) a suppressor termination codon within said second translatable sequence that upon suppression results in read-through to form a fusion polypeptide consisting of said matrix anchor polypeptide, linker polypeptide and preselected polypeptide.

31. The vector of claim 30 wherein said matrix anchor polypeptide is a head polypeptide.

32. The vector of claim 31 wherein said head polypeptide is pD.

33. The vector of claim 30 wherein said matrix anchor polypeptide is a tail polypeptide.

34. The vector of claim 33 wherein said tail polypeptide is selected from the group consisting of pL, pV, pG, pM and pT.

35. The vector of claim 31 wherein said second translatable sequence further includes a nucleotide sequence that defines a second ribosome binding site to initiate translation of said third translatable sequence.

36. The vector of claim 30 wherein said suppressor termination codon is selected from the group consisting of the amber and opal codons.

37. The vector of claim 30 wherein said linker polypeptide is from 10 to 100 amino acids in length.

38. The vector of claim 30 wherein said linker polypeptide has an amino acid residue sequence from 178 to 213 as shown in SEQ ID NO 6.

39. The vector of claim 30 wherein said conditionally suppressible cistron has a nucleotide sequence from 1 to 910 as shown in SEQ ID NO 5.

40. A recombinant lambdoid bacteriophage comprising a matrix of proteins encapsulating a lambdoid genome encoding a fusion protein, said matrix including said fusion protein, surface accessible in said matrix, and said fusion

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protein consists of, in the direction of amino terminus to carboxy terminus, a lambdoid bacteriophage matrix anchor polypeptide, a linker polypeptide and a preselected polypeptide.

41. The vector of claim 40 wherein said matrix anchor polypeptide is a head polypeptide.
42. The vector of claim 41 wherein said head polypeptide is pD.
43. The vector of claim 40 wherein said matrix anchor polypeptide is a tail polypeptide.
44. The vector of claim 43 wherein said tail polypeptide is selected from the group consisting of pJ, pV, pG, pM and pT.
45. The lambdoid bacteriophage of claim 40 wherein said preselected polypeptide defines a biologically active protein selected from the group consisting of an enzyme, a ligand and a receptor.
46. The lambdoid bacteriophage of claim 40 wherein said lambdoid genome further encodes a heterologous protein which forms a multimeric protein complex with said fusion protein in said matrix.
47. The lambdoid bacteriophage of claim 40 wherein said fusion protein is present as a multimeric complex, the complex comprising a fusion protein assembled with at least one monomeric polypeptide.
48. The lambdoid bacteriophage of claim 40 wherein said multimeric protein is selected from the group consisting of beta-galactosidase and Bauhinia purpurea agglutinin.
49. The lambdoid bacteriophage of claim 40 wherein said linker polypeptide has an amino acid residue sequence from 178 to 213 as shown in SEQ ID NO 6.
50. The lambdoid bacteriophage of claim 40 wherein said bacteriophage is detectably labeled.
51. A library of recombinant lambdoid bacteriophage particles wherein each particle contains a recombinant lambdoid bacteriophage vector comprising the

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recombinant lambdoid bacteriophage vector of claim 30, wherein said library contains at least 10^7 different species of said vector.

52. A library of recombinant lambdoid bacteriophage particles wherein each particle comprises a matrix of proteins encapsulating a lambdoid genome, said matrix including a fusion protein having an amino acid residue sequence that comprises, in the direction of amino terminus to carboxy terminus, a lambdoid bacteriophage matrix anchor polypeptide, a linker polypeptide and a preselected peptide defining a biological activity, wherein said fusion protein is surface accessible in said matrix.

53. A method for detecting the presence of a preselected target in a sample comprising the steps of:

a) admixing a sample containing said preselected target with a recombinant lambdoid bacteriophage of claim 45, wherein said preselected polypeptide defines a biologically active ligand or receptor which binds to said preselected target, under binding conditions sufficient for said target-binding bacteriophage to bind said target and form a target-ligand or receptor complex;

b) detecting the presence of said complex, and thereby the presence of said preselected target.

54. The method of claim 53 wherein said detecting comprises detecting the presence of said bacteriophage particles, and thereby the presence of said preselected target.

55. A method for producing a recombinant lambdoid bacteriophage, comprising the steps of:

a) infecting an E. coli host strain having a termination codon suppression phenotype with a recombinant lambdoid bacteriophage vector of claim 30; and

b) culturing said infected host strain under bacteriophage growth conditions to produce said recombinant lambdoid bacteriophage.

56. The method of claim 55 wherein said E. coli host strain is MC8 and